

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed**1.1. Name of the Data, data collection Project, or data-producing Program:**

Recovery of Queen Conch in the U. S. Virgin Islands

1.2. Summary description of the data:

The queen conch is an important cultural component and an extremely valuable coral reef fishery resource throughout the Caribbean, historically second only to the spiny lobster. Comparisons of past studies with current densities from these areas continue to show that queen conch populations are depleted although we may be seeing small signs of increase. This data set investigates the population status of queen conch around St. John, U.S. Virgin Islands, through mark and recapture, habitat availability and utilization, acoustic tracking, and seasonal migration studies to provide needed information for improved management.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2005-05 to 2010-09

1.5. Actual or planned geographic coverage of the data:

W: -64.794, E: -64.661, N: 18.388, S: 18.286

St. John - U.S. Virgin Islands

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

Table (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

Instrument: Acoustic hydrophones and tags, temperature loggers, dissolved oxygen meters, GPS units, calipers

Platform: NOAA and non-NOAA vessels

Physical Collection / Fishing Gear: Manual capture

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

Jennifer Doerr

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

Southeast Fisheries Science Center

2.4. E-mail address:

jennifer.doerr@noaa.gov

2.5. Phone number:

409-766-3705

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

Jennifer Doerr

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

No

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

0

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly

accessible

(describe or provide URL of description):

Process Steps:

- 2012-01-01 00:00:00 - Three field expeditions per year were completed beginning in May 2005 and ending in September 2010, each lasting from 10-14 days. During each sampling period, we haphazardly surveyed each bay for the presence of queen conch. The majority of these surveys were conducted by snorkel, but occasional SCUBA surveys were completed. At each conch's location we measured dissolved oxygen, salinity, depth, water temperature, air temperature, and wind speed. Spatial coordinates were collected using a portable wide area augmentation system-enabled global positioning system (WAAS GPS) unit. Siphonal (shell) length and lip thickness were measured with vernier calipers. Upon initial capture each conch was tagged with a uniquely numbered disk or T-bar anchor tag by drilling a small hole adjacent to the lip of the shell and injecting the tag through the hole. A small drop of super glue secured the tag in place until the conch deposited new material permanently integrating the tag into the shell. High resolution determination of habitat type at each conch's location was completed by centering a 1-m² quadrat over the conch and visually identifying all benthic organisms contained within the quadrat. Vemco model VR2 omnidirectional hydrophone receivers were deployed throughout each study site such that an array of overlapping detection zones was created corresponding with changes in benthic habitat structure. Range tests were performed at each location on several occasions until a maximum range of tag detection was established. Locations were tested and adjusted accordingly to ensure adequate overlap in zones between neighboring receivers. Hydrophones were mounted on steel tie-down anchors, sunk approximately 1 m into the sediment such that the receiver base rested just above the sediment surface. Receivers were secured to the anchor with a combination of cable ties, hose clamps, and a padlock to minimize the possibility of equipment loss from vandalism or natural events. During the course of the project, we deployed 12 hydrophones in Fish Bay, 4 in No Name Bay, 5 in Brown Bay, and 5 in Coral Bay. HOBO temperature loggers (Onset Computer Corp.) were deployed at each hydrophone location, as well as several surface locations throughout each bay. Prior to deploying acoustic tags, varying sizes and maturity categories of queen conch were selected to effectively represent the composition of the population at large. Individuals matching the chosen size classes were randomly captured and tagged with Vemco V7-4L-R64K acoustic transmitters (20.5 mm length, 7 mm diameter) with a time interval of 60-180 seconds and an average life expectancy of 220 days. Tags were cemented using Liquid Roc 700 Acrylic Twin Tube epoxy (MKT Fastening, LLC) onto the highest portion of the spire where signal transmission was least likely to be obstructed. After the epoxy had cured (10-15 minutes) conch were returned to their exact location, marked previously by a fluorescent flag. On each field trip data files were downloaded from the receivers using an underwater cable. Temperature loggers were downloaded by temporarily removing them from the anchors, downloading, and replacing them in their previous location. After 12 months of continuous

deployment receivers were removed from their anchors, cleaned, and batteries replaced to ensure no gaps in data collection. Data files were converted to MS Excel spreadsheets and transferred into ArcView 9.1. Spatial locations of tagged conch were overlaid onto categorized NOAA benthic habitat maps (NOAA/NCCOS Biogeography Program) to examine distributions through habitat types. Movement patterns and position estimates for queen conch with acoustic tags were interpreted from locational data collected on capture/recapture and detection patterns in hydrophone data.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

Each tagged queen conch was assigned a unique identification code. The identifier and its associated information (e.g. date, location, habitat) was recorded on field data sheets. After data were entered into an Excel spreadsheet or similar database file, the information was printed out and compared against the field data sheets by two biologists. Corrections were made at this time and saved. The electronic file was also sorted and examined by other project personnel in a variety of ways to look for outliers, missing data, and other potential errors.

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

Yes

6.1.1. If metadata are non-existent or non-compliant, please explain:

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:

<https://inport.nmfs.noaa.gov/inport/item/24265>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: <https://inport.nmfs.noaa.gov/inport/downloads/data->

documentation-procedural-directive.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

No

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

No

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

The National Marine Fisheries Service (NMFS) does not approve, recommend, or endorse any proprietary product or proprietary material contained in this data set. The NMFS Galveston Laboratory Fishery Ecology Branch compiled these data sets in order to develop a scientific basis for refining essential fish habitat designations for future amendments to fishery management plans. NMFS is not responsible for any uses of these data sets beyond those for which they were intended, and NMFS makes no claims regarding the accuracy of any data provided by agencies or individuals outside NMFS.

7.2. Name of organization of facility providing data access:

Southeast Fisheries Science Center

7.2.1. If data hosting service is needed, please indicate:

No

7.2.2. URL of data access service, if known:

http://www.sefsc.noaa.gov/parr/bulk_downloads/24265.zip

7.3. Data access methods or services offered:

Get through Coris

7.4. Approximate delay between data collection and dissemination:

365

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

N/A

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

To Be Determined

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

The archival process is currently under development.

8.2. Data storage facility prior to being sent to an archive facility (if any):

Southeast Fisheries Science Center - Miami, FL

Location of the main office of the Southeast Fisheries Science Center.

8.3. Approximate delay between data collection and submission to an archive facility:

365

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

The data resides on a secure government network requiring multi-factor authentication for network access.

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.